Title: SEMICONDUCTOR INTEGRATED CIRCUIT DEVICE HAVING A LEAKAGE CURRENT CUTOFF CIRCUIT, CONSTRUCTED USING MT-CMOS, FOR REDUCING STANDBY LEAKAGE CURRENT
Inventor's Name: MIYAGI
Application No.: NEW
Docket No.: 100021-00133

US

Fig.1A
(Prior Art)

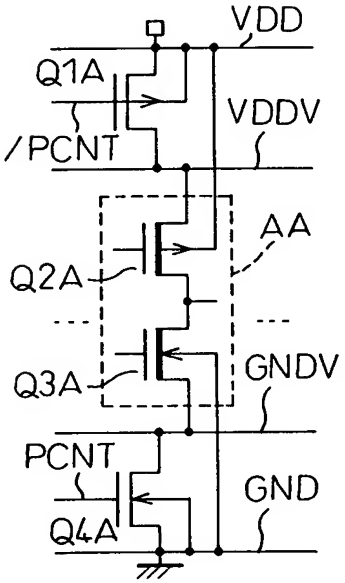


Fig.1B
(Prior Art)

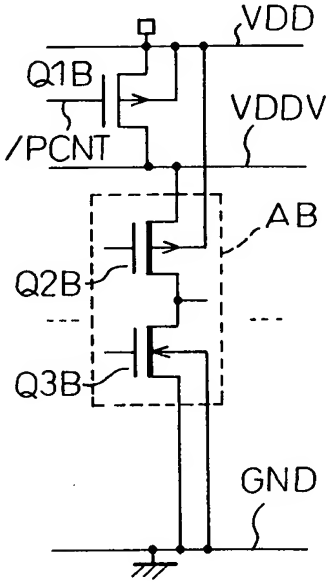


Fig.1C
(Prior Art)

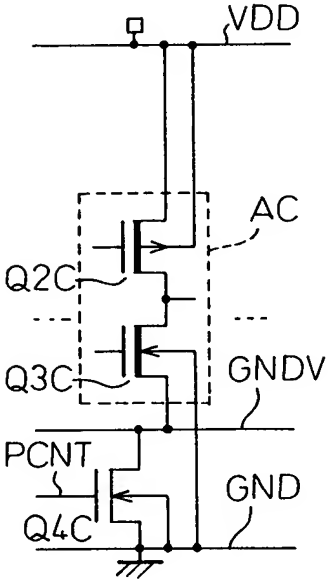


Fig.1D
(Prior Art)

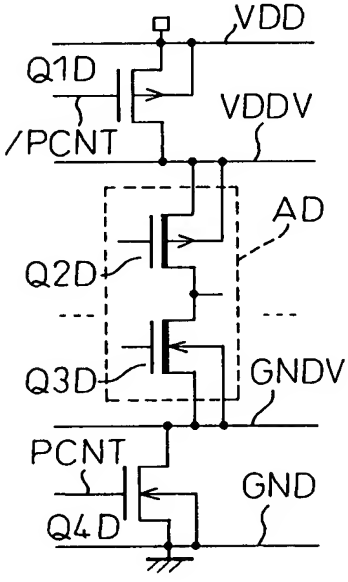


Fig.1E
(Prior Art)

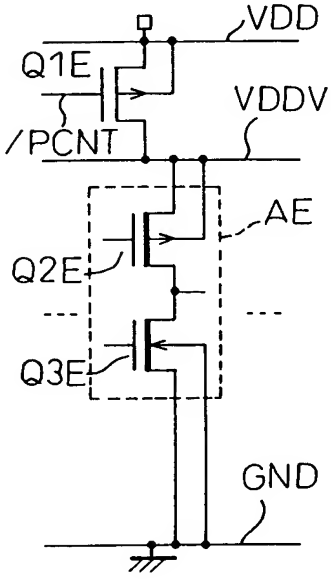
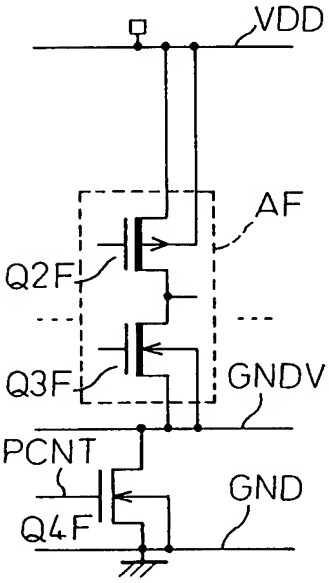
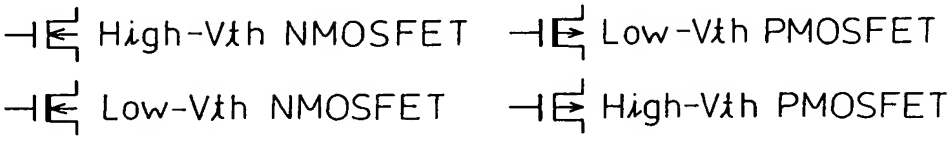


Fig.1F
(Prior Art)





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Inventor's Name: MIYAGI
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Fig. 2A
(Prior Art)

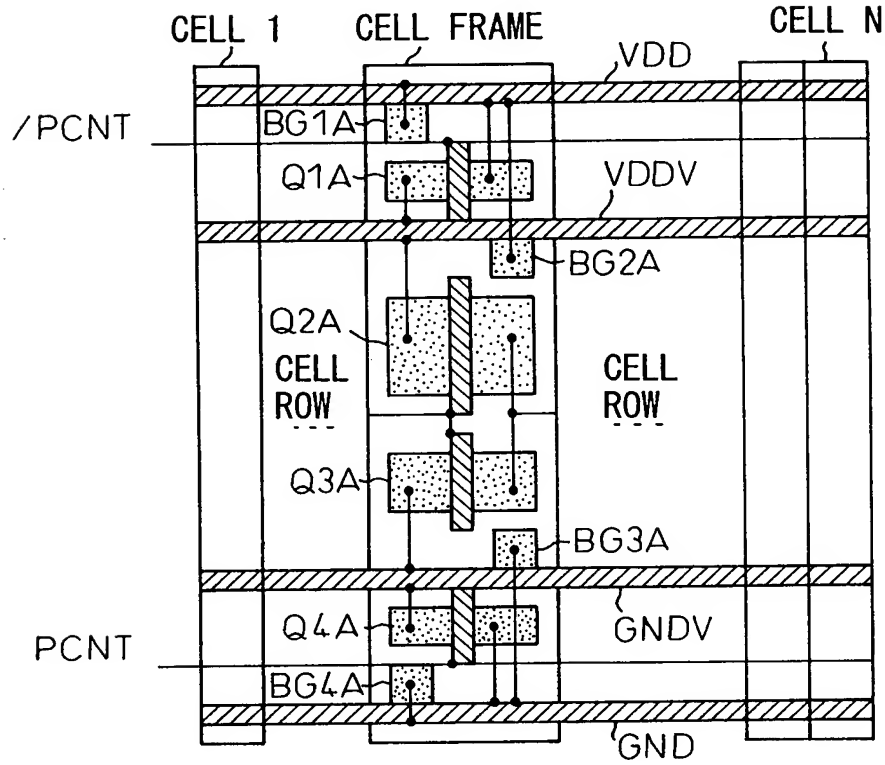

Fig. 2B
(Prior Art)

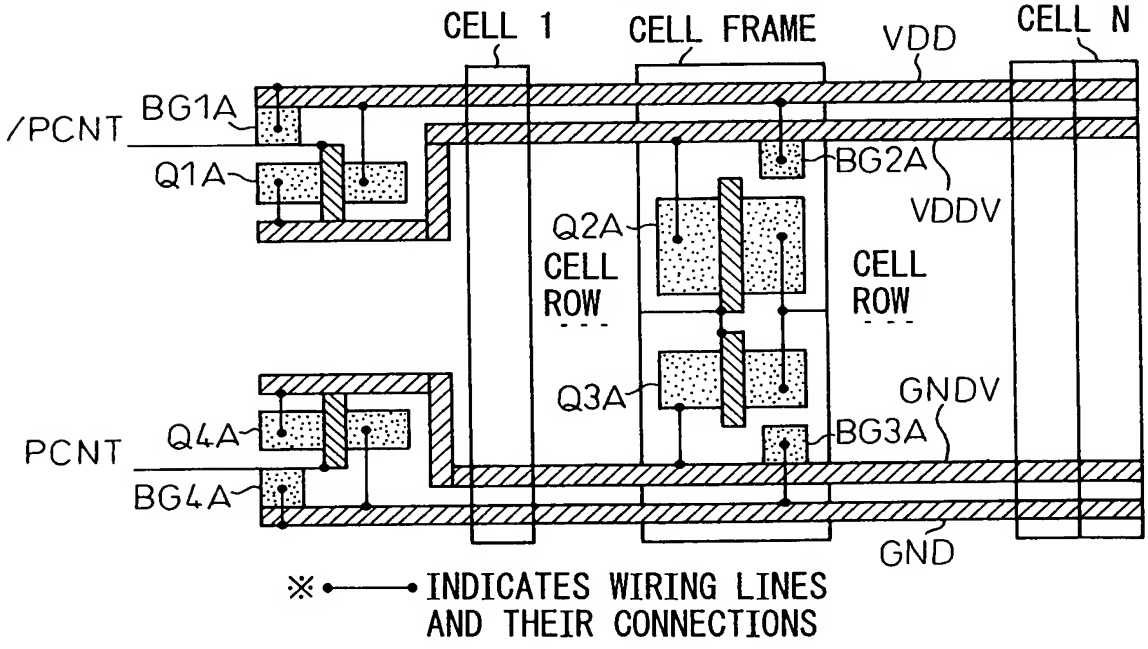

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Fig.3
(Prior Art)

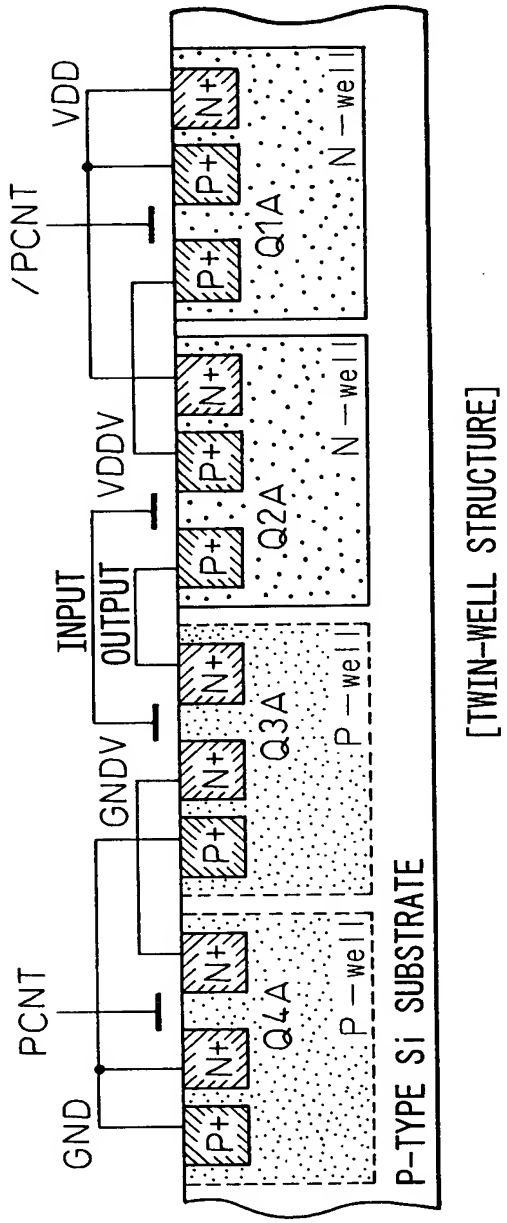
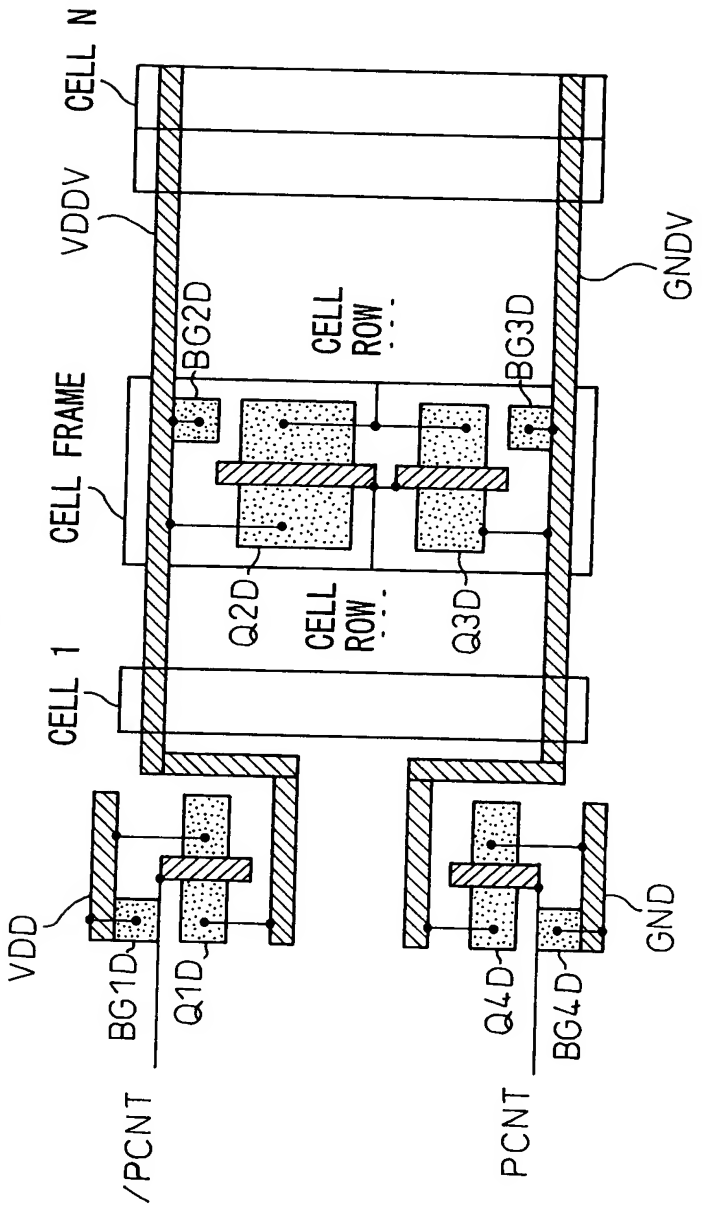


Fig. 4
(Prior Art)



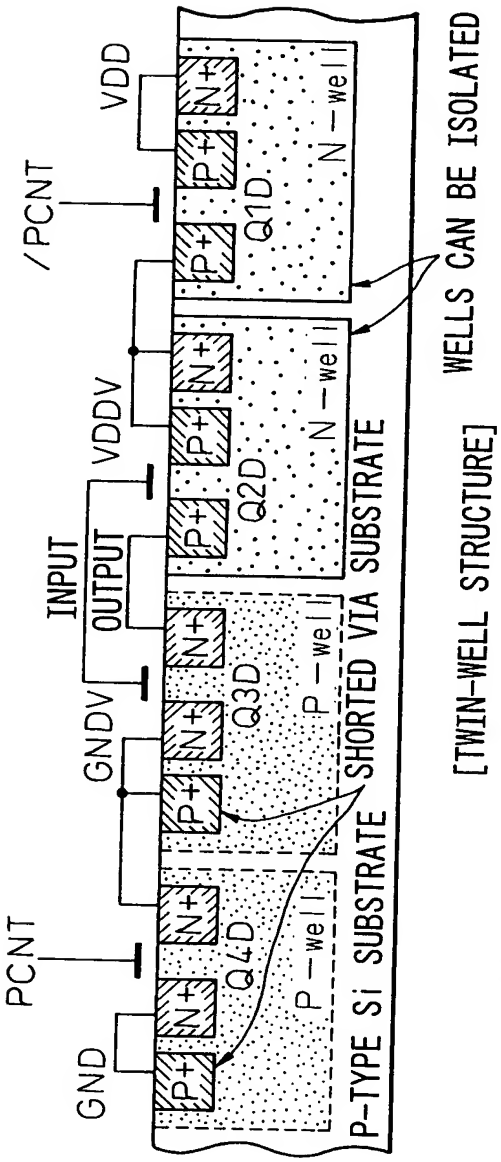


Fig.5A
(Prior Art)

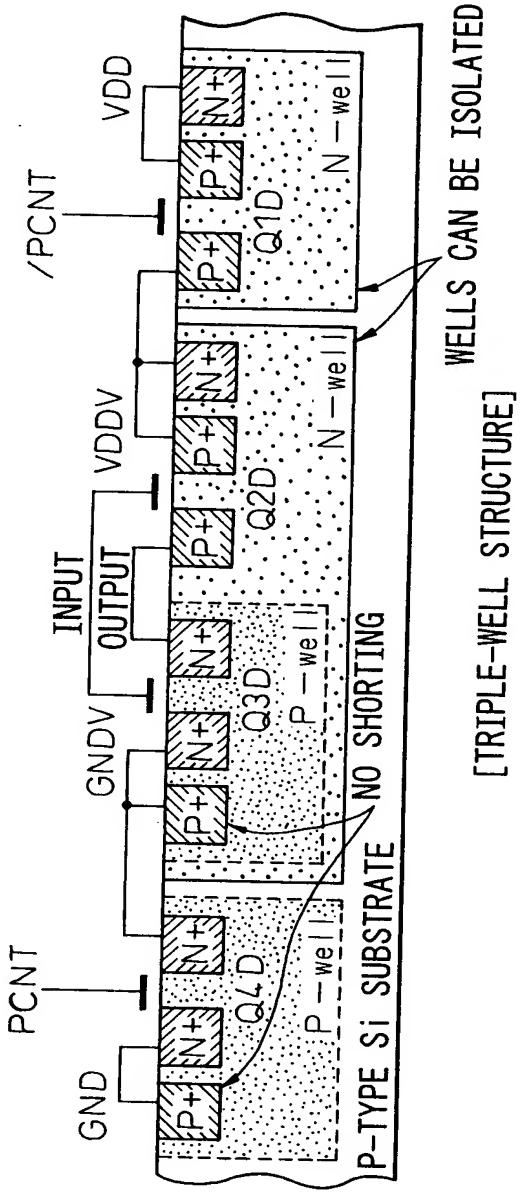
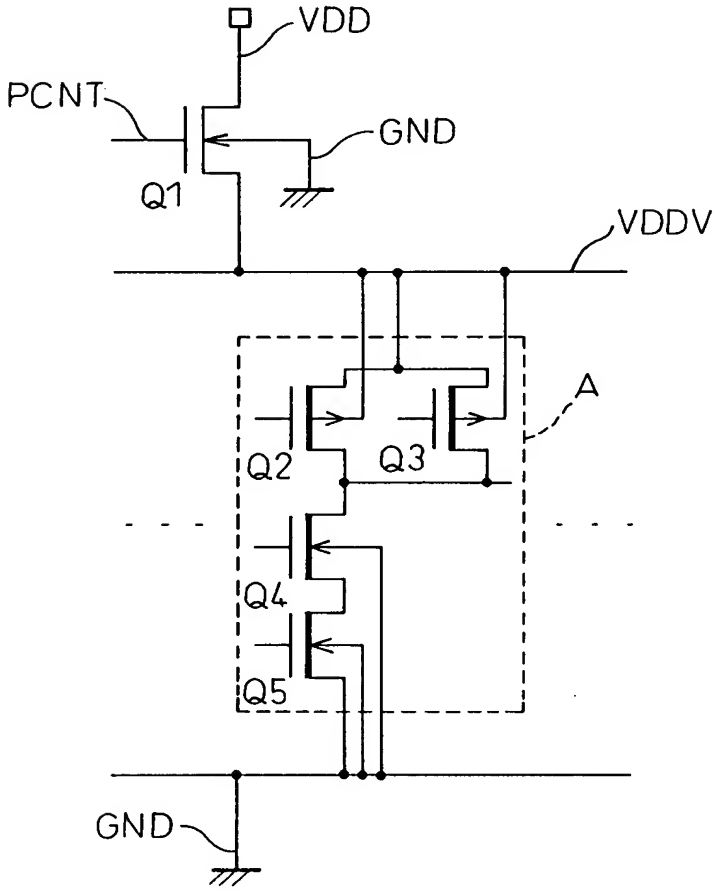


Fig.5B
(Prior Art)

Fig.6



High-Vth NMOSFET Low-Vth PMOSFET

Low-Vth NMOSFET

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Fig.7

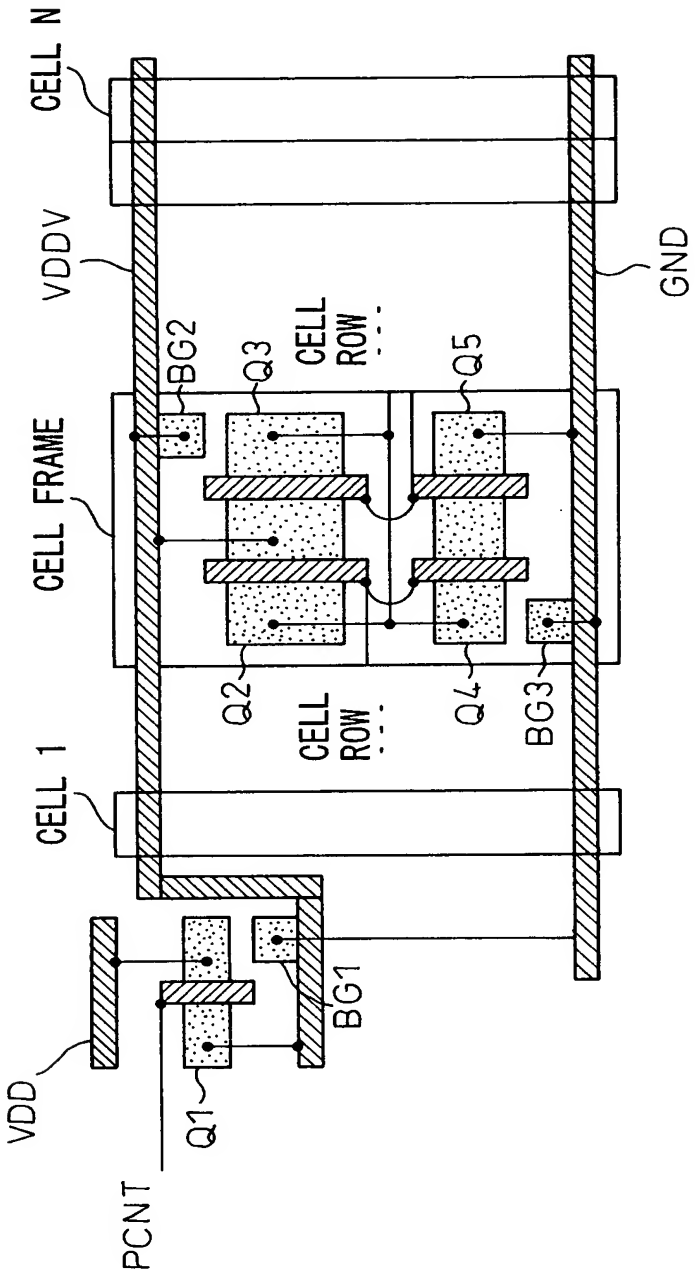

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Fig.8

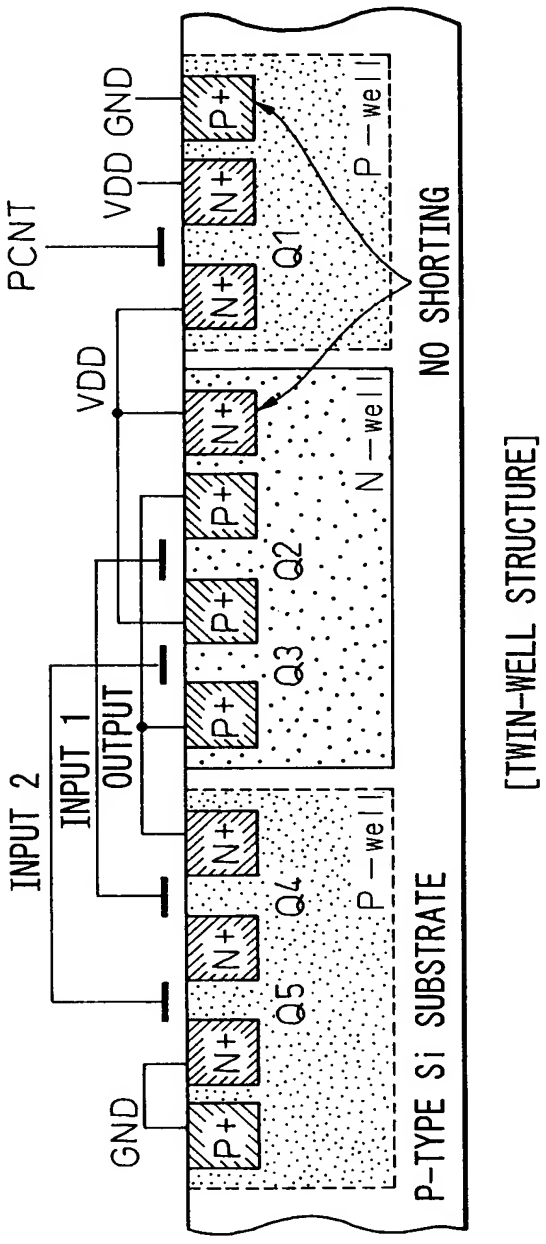

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Fig.9C

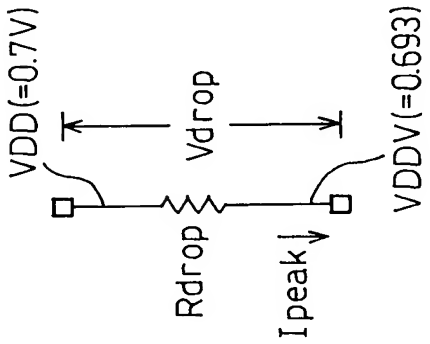

Fig.9B

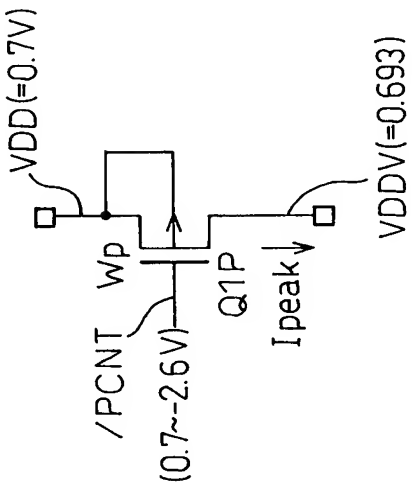

Fig.9A

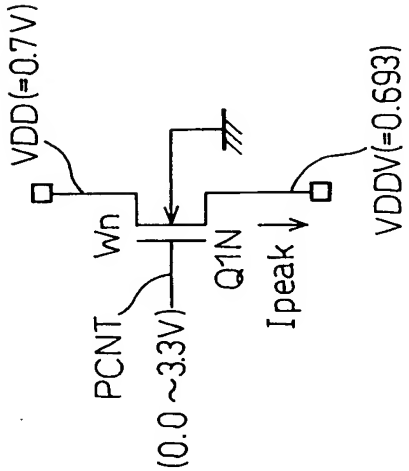

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Fig.10

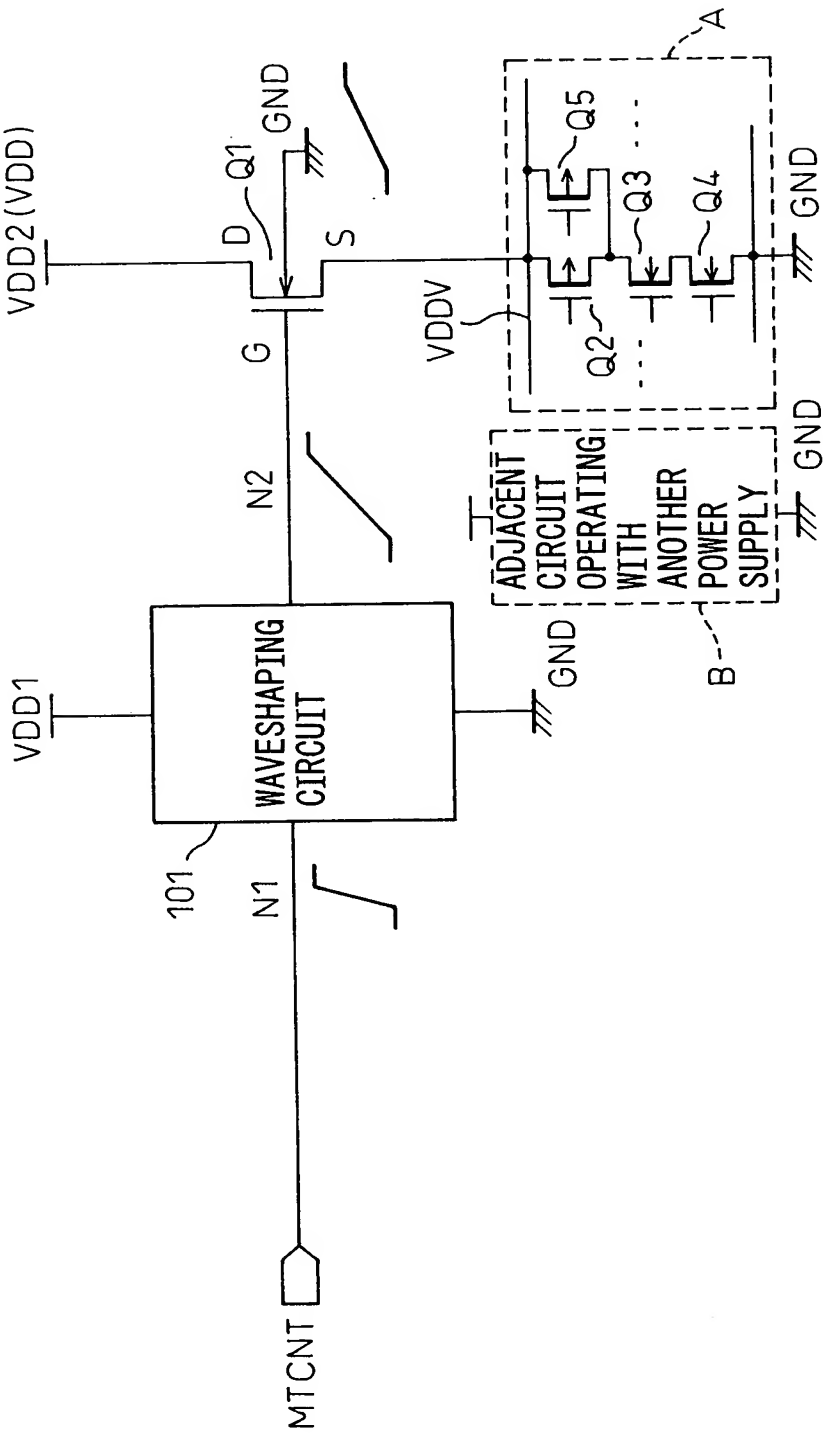

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Fig.11A

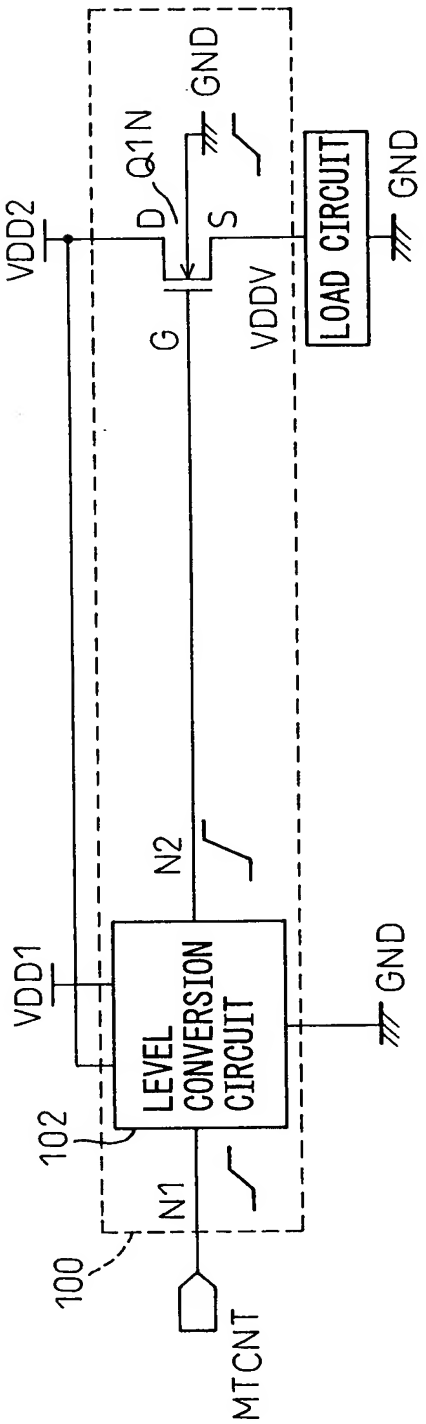

Fig.11B

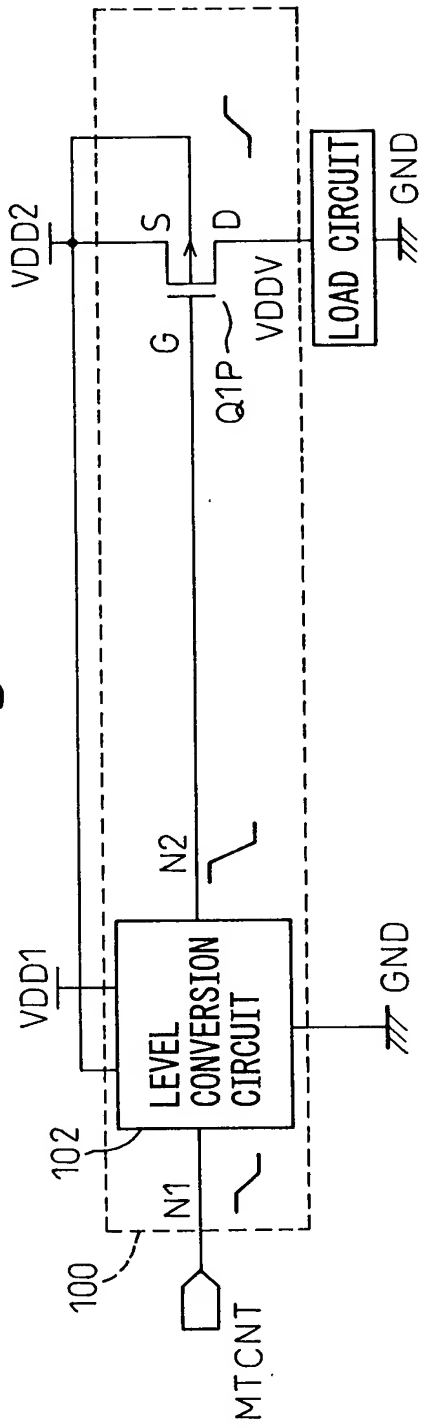

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Fig.12

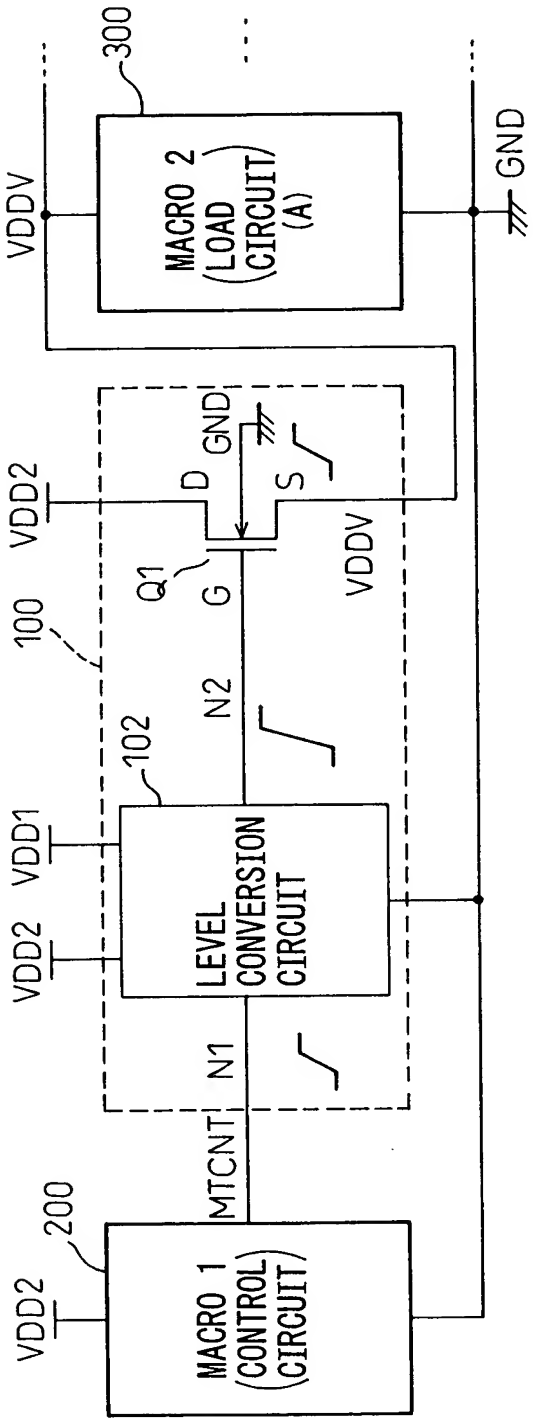

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Fig.13

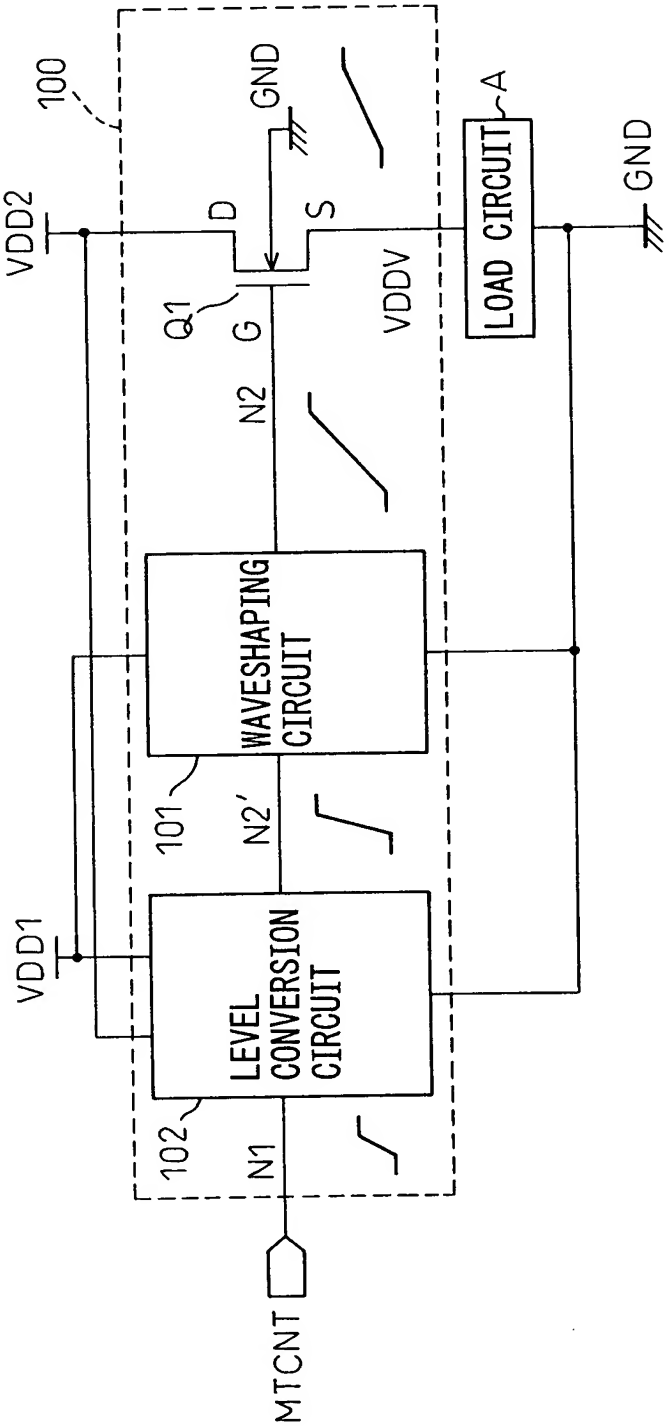

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Fig.14

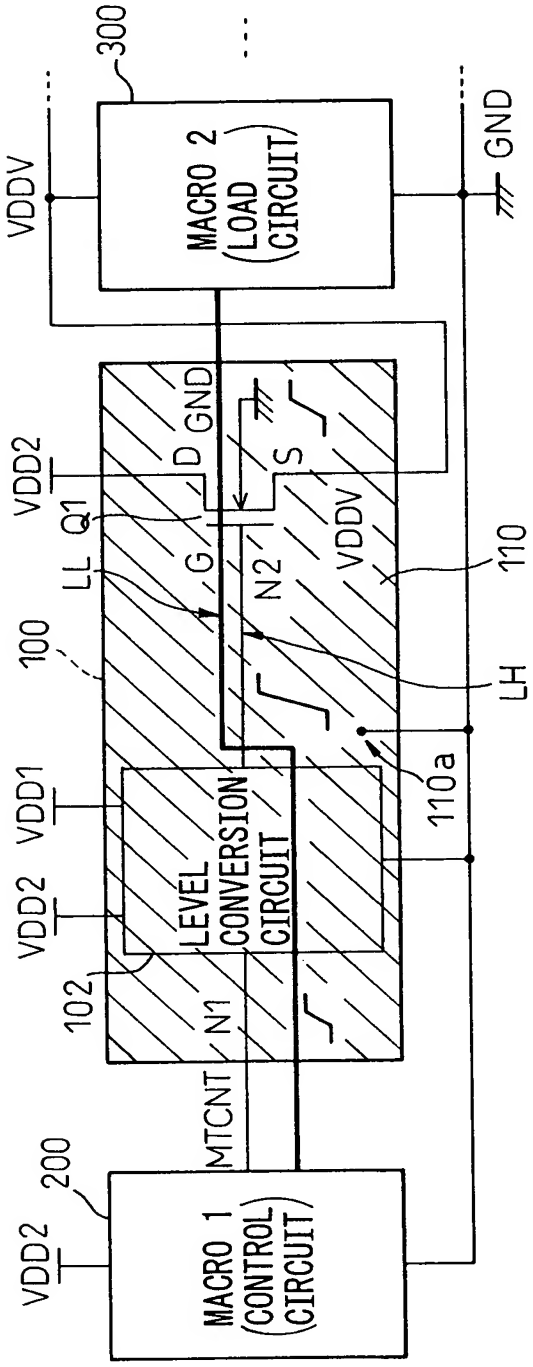

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Fig.15

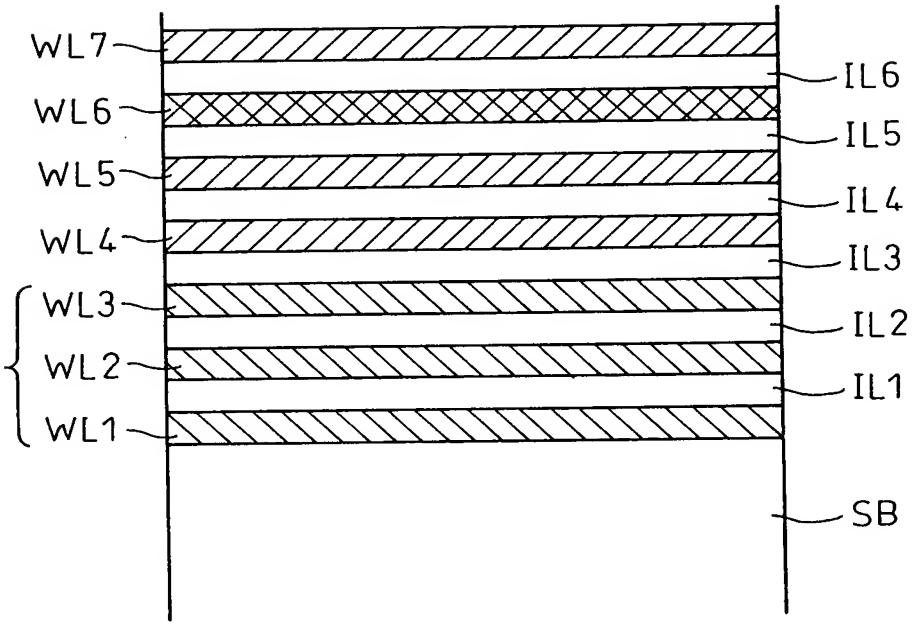

Fig.16

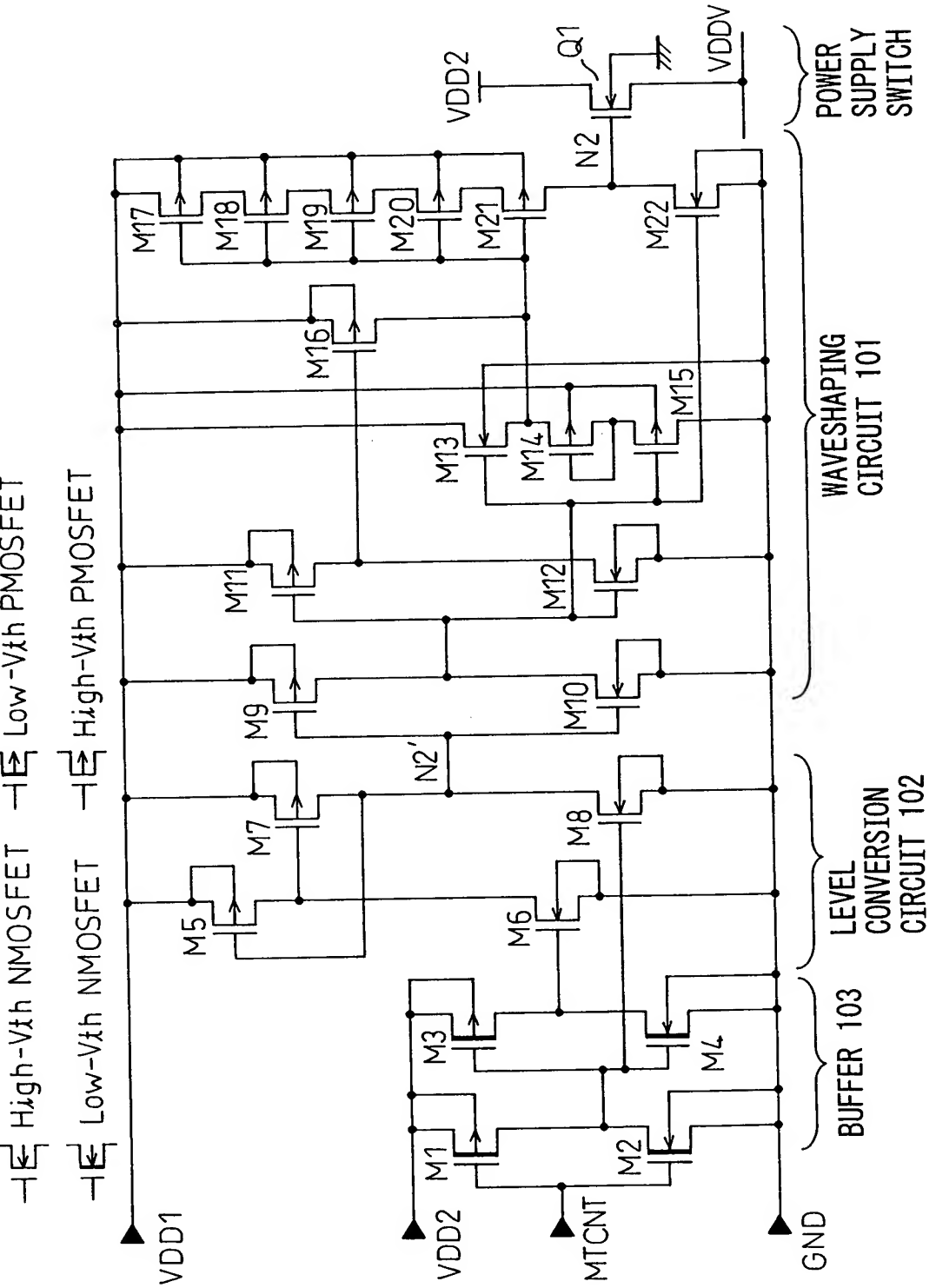
High-Vth NMOSFET
Low-Vth NMOSFET
Low-Vth PMOSFET
High-Vth PMOSFET
VDD1
VDD2
MTCNT
GND
VDD2
VDDV
Q1
N2
N2'
M1
M2
M3
M4
M5
M6
M7
M8
M9
M10
M11
M12
M13
M14
M15
M16
M17
M18
M19
M20
M21
M22
BUFFER 103
LEVEL CONVERSION CIRCUIT 102
WAVESHAPING CIRCUIT 101
POWER SUPPLY SWITCH

Fig.17

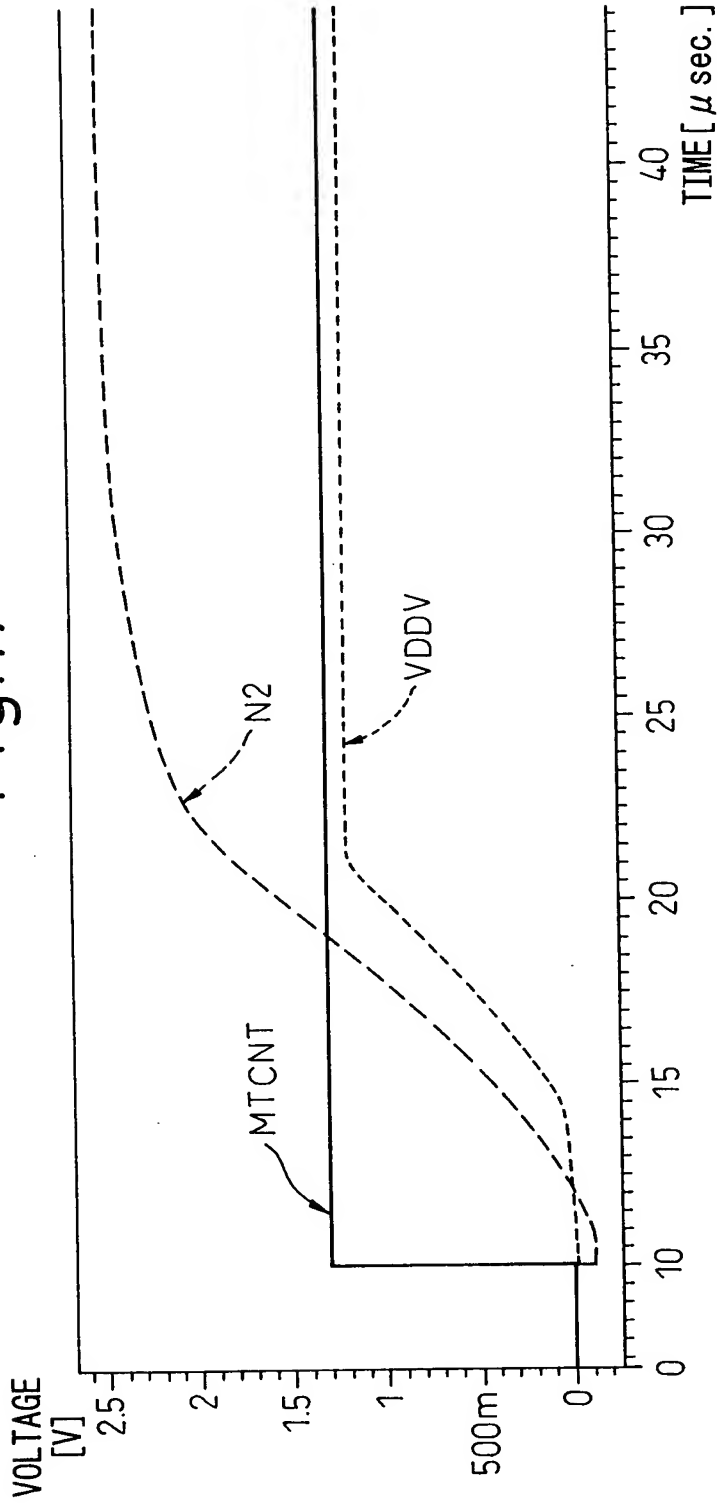
VOLTAGE [V]
2.5
2
1.5
1
500m
0
0
10
15
20
25
30
35
40
TIME [μsec.]
N2
VDDV
MTCNT

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Fig.18

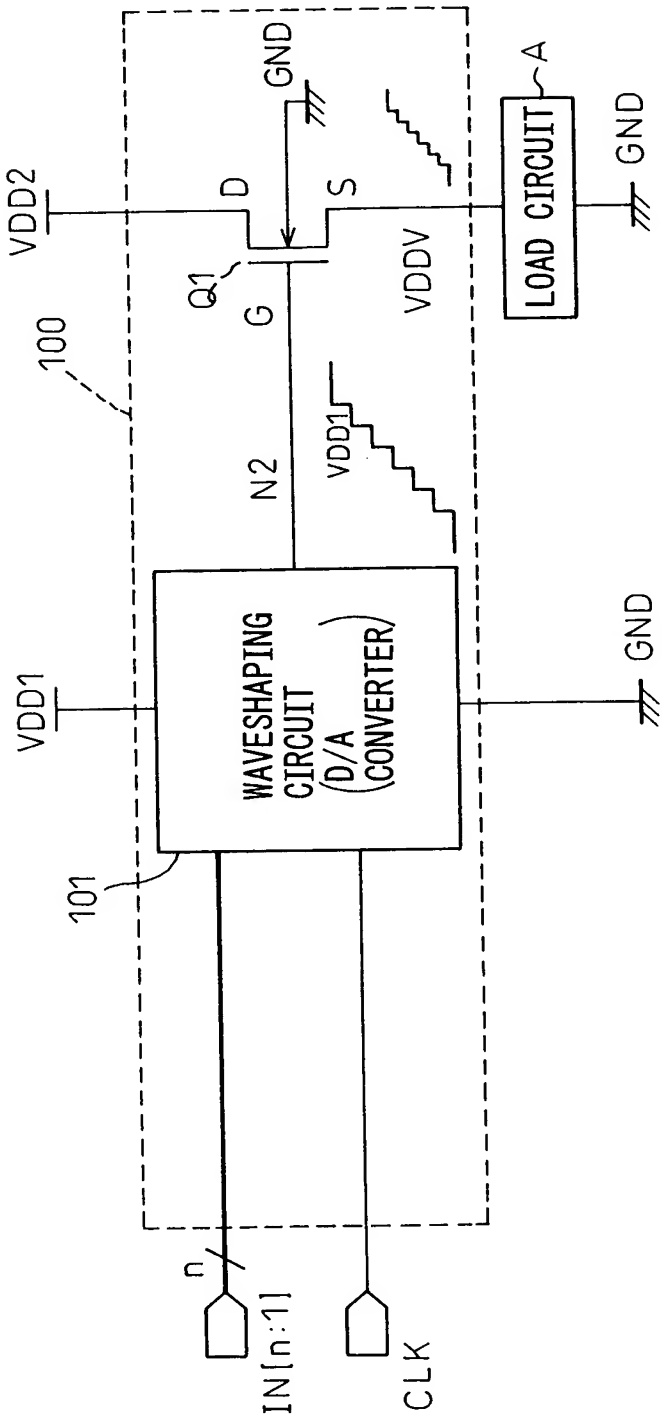

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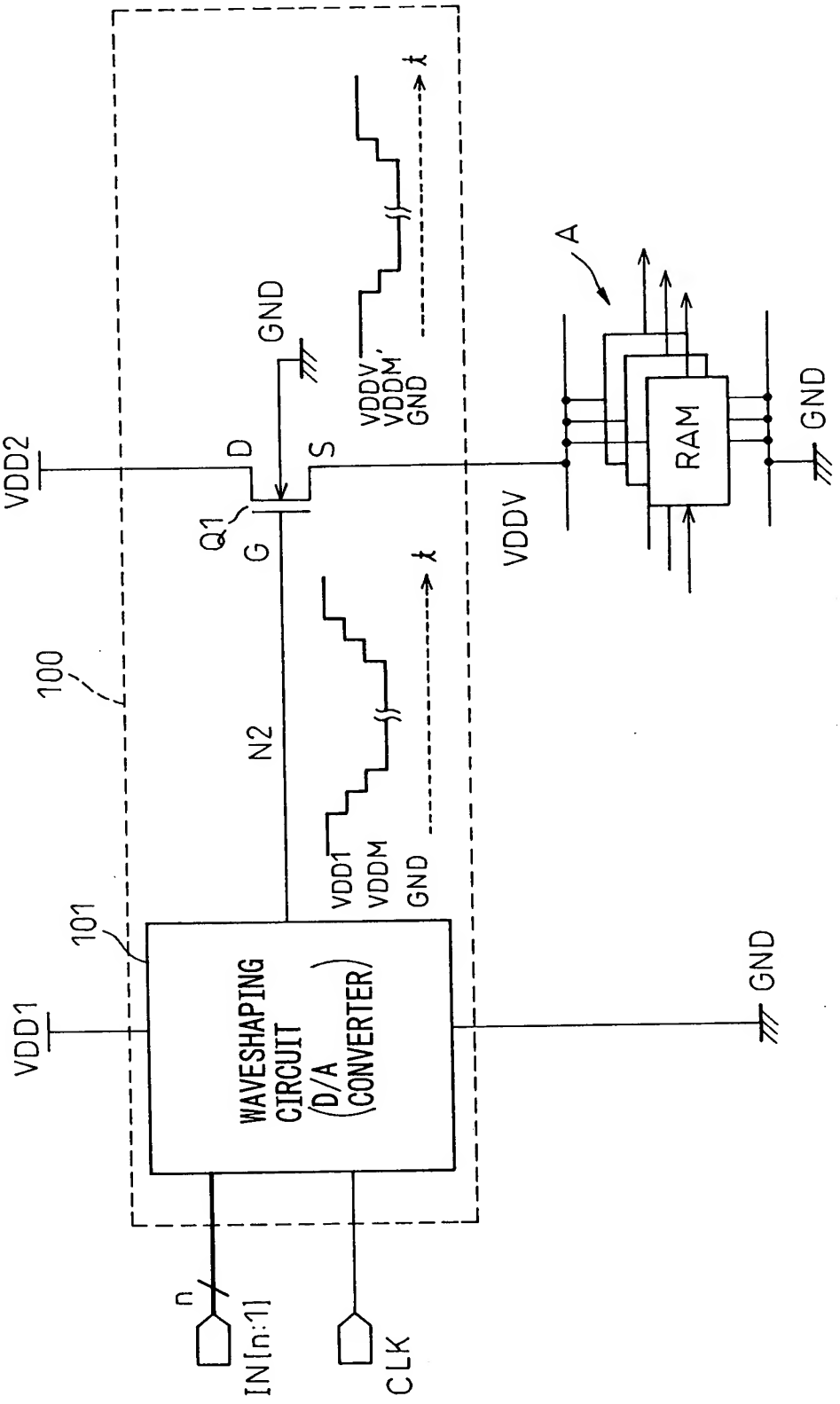
Fig.19



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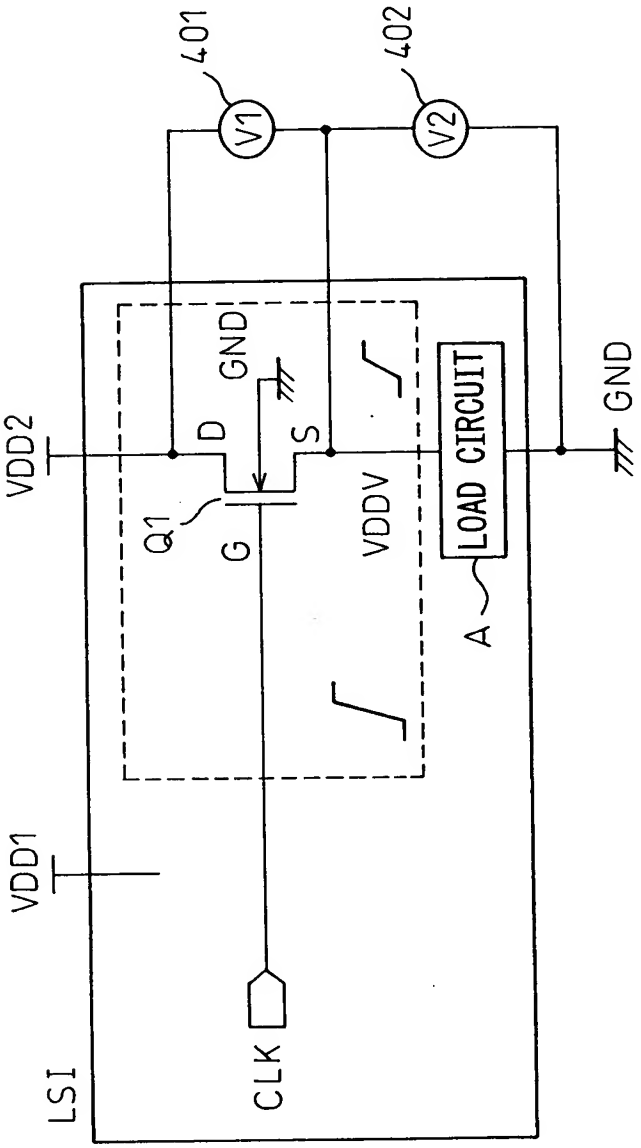
Fig.20